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ABSTRACT

The primary data source for a study of entry into postsecondary education was the National Longitudinal Study of the High School Class of 1972. From this data it was seen that almost one-third of high school seniors enter four-year colleges within two years of graduation, and nearly half are in either two- or four-year institutions at that time. Socioeconomic status (SES) is a strong influence, and while medium SES individuals, as against high SES, seem to predominate at the two-year level, low-ability, high-SES persons stand out somewhat at this level of schooling. More men than women seem to get to college, except that black women seem to be gaining in entry as compared to men of any race. The four-year college seems to be characterized by higher SES and ability students. At the two-year level, high ability-low SES students do about as well as low ability-high SES students. But at the four-year level, in addition to more overall variability among students, women have the edge at both high and low ability levels. Blacks have higher entrance rates to four-year colleges than whites at each ability level while Hispanics seem to predominate at the two-year institutions. However, blacks seem to be concentrated in lower selectivity level postsecondary institutions when compared to whites. Whereas the American system is heading toward equality of postsecondary educational opportunity in terms of numbers and percentages of minorities entering school, it may have a long way to go in achieving a better match between minority individuals and the schools they attend. (Authors/MSE)

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Entry into Postsecondary Education

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Entry into Postsecondary Education[1/]

I. INTRODUCTION

An examination of entrance into postsecondary education is the prerequisite for a look at the withdrawal and transfer behavior among participants in postsecondary education, as well as any meaningful examination of the effects of financial aid on their persistance in continuing through to the award of another diploma or certificate. This paper is the first of four in this symposium series which deals with postsecondary education. It will describe some basic and some interesting aspects about those who enter two- and four-year colleges; it will not go far in explaining why they enter, although there will be some intriguing anomalies in the data pointed out which may indicate some cause-and-effect taking place.

The primary data source for this study is the National Longitudinal Study of the High School Class of 1972 (NLS), which is sponsored largely by the National Center for Education Statistics with additional financial support from several offices and bureaus of the U.S. Office of Education. The NLS is based on a national probability sample of high school seniors in 1972 from some 1,300 public, private, and church-affiliated schools. With the third follow-up completing its data collection phase this month, better than 90 percent--or about 20,000 sample members--have continued to respond since they were first contacted. In addition to baseline information (background, activities, academic programs, ability estimates), each respondent to each follow-up has added subsequent educational and occupational activities; plans, aspirations, and attitudes; and family and personal development milestones. The NLS data base is now being used for investigations into a wide range of young adult growth in America. Postsecondary education is but one such area.

It should be noted at the outset that some of the data presented in this paper may be familiar to some readers. Educational Researcher (Peng, 1977) carried a comparative examination of NLS versus Project TALENT as regards differing postsecondary entrance rates between 1961 and 1972, and Peng reported some substantial sex, race, and ability changes across the decade. This paper will build on that foundation by pointing out some important current differences among the several demographic subgroups of particular interest. Socioeconomic status, sex, and race reflect directly on attainment of equality of opportunity in education; and the high school program a student completes appears to be a

pervasive influence throughout his postsecondary education experience, with particular relevance at entry.

II. WHO ENTERS COLLEGE?

A. Overall

About 30 percent of American high school seniors in 1972 entered four-year colleges and universities in the fall following graduation from high school. Even considering late entry, i.e., delayed by one year perhaps while deciding to stop out a while, the percentage is increased to just over 31 percent--less than one-third of our high school graduates (see Table 1). The figures are improved somewhat when one adds in the growing effects of the widespread two-year and community college development programs, as an additional 17 percent in those kinds of schools brings the total percentage of students in college by about 16 months after graduation to about 49 percent. Not shown in Table 1 is an additional eight percent who are in or who have completed vocational or technical programs in a variety of settings by that time.

B. High School Program Effects

The clear and largely self-fulfilling tracking system which leads many young adults to postsecondary education in the college environment is the high school curriculum in which they participated. It is easy to predict that a high proportion of academic program students go on--and they do, as Table 2 clearly indicates. Not shown there, but evident from much other data (Tabler, 1976), is the fact that the same relative percentages across the three high school programs occur within three ethnic groups (black, white, Hispanic) as well as in the two sexes shown.

There are some weaknesses in these data relating to the determination of the actual high school program which the respondent should be considered as having completed. This variable is based primarily on students' self-report during the base year survey, with two secondary data sources if that were missing: retrospectively from fall 1973 (again by self report), and developed by a survey administrator from an examination of school records. Fetters (1975) reported from ETS materials percent agreements of 78, 60, and 66 respectively for the academic, general, and vocational data between self report and survey administrator determination. Thus, unless an investigator develops his own rubric for high school curriculum determination from other data on the NLS file (as at least one investigator is doing), these kinds of effects may justifiably be regarded with some caution unless, of course,

some differences appear overwhelming. Table 2 presents such a case for the high school academic program participants. While the percentages shown may have some error of misclassification associated with them, it will be interesting later to examine the withdrawal and persistance rates of each of these groups.

C. Socioeconomic Status (SES) Differences

SES is another important explanation as to differences which determine who goes to college, although recent work in progress at RTI with the NLS data is beginning to show somewhat of a leveling effect as governmental programs (e.g., BEOG) reach their lower SES targets. The SES measure used for the current analyses, and included as a composite variable on the NLS data tapes, is derived from a combination of five factors (father's education, mother's education, parental income, father's occupation, and a household items index) transformed into a continuous score which, in turn, was assigned to a quartile on the basis of weighted composite score frequencies.

Noting Table 3, it can be seen there is a substantial difference between low and high SES two- and four-year college attendance, especially four-year. However, the egalitarian role of the two-year college programs, a strong force in many parts of the nation, is clearly seen by the higher medium-SES (middle two quartiles) percentage at that level. Other than that hint of a more equitable distribution of entrance characteristics at the two-year college, the status is as expected: high SES people are clearly getting into college at a higher rate.

D. Sex and Race Characteristics

Total entrance rates into colleges by fall 1973 also differed according to sex and race. Table 4 shows that males had a slightly higher entrance rate (about 51 percent) than females (about 46 percent). This male-female difference holds equally well at the four-year level (33 versus 30 percent) and at the two-year level (18 versus 16 percent). About 41 percent blacks entered college, and whites had the highest entrance rates for four-year colleges while Hispanics had the highest for the two-year colleges.

However, there is an interesting relationship when you control for race and sex: there is a smaller percentage of black males than females in four-year institutions, and this particular anomaly is not offset by the expected (in the light of the general finding above that more males than females go to college) male lead at the two-year level. Thus among blacks there is a small overall female advantage (42 as against 40 percent) in

college attendance. This could be the synergistic effect of equal opportunity and affirmative action working hand-in-hand.

E. Sex, Ability, and SES Interactions

Yet another way to look at the college-entering population of young adults is to control for more factors simultaneously and examine the interactions. Tables 5 and 6 are concerned with the four-year and two-year entrants, respectively.

The ability composite which appears in the NLS data file and was used in these analyses is composed of four base-year tests: vocabulary, reading, letter groups, and mathematics. The factor analysis of these measures revealed a general academic factor which suggested a weighted linear composite classified into quartiles, much like the SES composite.

Except for some minor anomalies within the low ability quartile, both men and women generally show the expected overall higher percentages of college attendance at higher SES and ability levels. Indeed, examining the principal diagonals of Table 5 in particular, the expected increased attendance rates with both ability and SES are evident, although men show a slight advantage at the intersection of the third level of each factor (34 as against 29 percent). Several points to ponder: In spite of the prior-mentioned stress on SES, note that the high ability-low SES groups both do well (38 percent of men and 44 percent of women; the low ability-high SES groups do not (14 percent of men and 18 percent of women). Ability still seems to count, which it should. Also note two aspects of the high ability women: (1) at both the lowest and highest quartiles of SES they do better than high ability men; and (2) only at moderate levels of SES are these women surpassed by men in college attendance.

Two-year college attendance patterns by sex, ability, and SES are quite different. Examining the principal diagonals of Table 6, one can see the drop-off among both men and women at the higher ability and SES levels. Except at the lowest ability level, there is a curvilinear relationship between attendance and SES, as more of the moderate SES (levels 2 and 3) than either low (1) or high (4) background individuals are seen to attend this level school. The low ability-high SES percentages being relatively high for both sexes suggests again the strong effect of SES (see Table 3) asserting itself.

Another interesting point of contrast to the four-year figures: among both men and women at the two-year level, high ability-low SES (15 percent men and 22 percent women) do just about as well as low ability-high SES (16

percent men and 20 percent women). But, just as with the four-year college students, women have the edge at both these extremes.

F. Race and Ability

Higher percentages of high ability blacks than of high ability whites or Hispanics entered four-year colleges immediately after high school, as can be seen in Table 7. Note also that for two-year institutions, higher percentage of Hispanics at all ability levels entered this postsecondary path.

After having seen that comfortably high percentages of blacks entered postsecondary education, and that this is particularly evident at the higher ability levels, it might be fairly asked how they are distributed among colleges and universities. Do they differ, for example, from whites in the potential "quality" of their education?

One measure used to assess the characteristics of postsecondary educational institutions is Astin's (1971) college selectivity index, which has eight levels based upon average scores (SAT, ACT) of entering students and which ranges from 1 at the lowest to 7 at the highest, with a 0 (unknown) category indicating no direct level of selectivity available. According to Astin, this last level tends to average around 1 or 2. For purposes of this analysis, the eight levels have been collapsed to the three shown in Table 8, and for simplicity the ability composite has also been collapsed to low, medium (middle two quartiles), and high.

Examination of Table 8 reveals that regardless of ability level, blacks tend to congregate in the lower selectivity level four-year schools, and as compared to whites the difference is striking: nearly 71 percent of blacks who are in four-year colleges are in "low-level" colleges, as compared to 49 percent of whites. There is a bright side, however, as high ability blacks appear to do considerably better than high ability whites in entering the most selective schools. But in spite of that, more than half of high ability blacks (52 percent) are not so fortunate.

The findings of Table 8 are presented graphically in Figure 1. Looking at Figure 1a, one can see that among whites in four-year colleges, the schools having lower selectivity levels have the higher percentages of students regardless of ability level. The three lines never cross each other. Attendance at schools having the lowest and highest academic levels is related to student ability in somewhat an expected manner. However, percentage attendance at mid-level schools appears to have little relationship to

student ability. It is interesting to note that a relatively high percentage of high ability white students attend schools in the lowest academic level (43 percent); however, extremely few low ability white students attend schools in the highest academic levels.

Blacks in four-year schools (Figure 1b) exhibit some of the same general tendencies, with schools having lower selectivity levels showing an even higher percentage of attendance that whites at all levels of ability. With blacks the attendance at schools of lowest and highest academic levels (especially the highest selectivity schools) exhibit an even stronger relationship to ability than is the case with white students. Another interesting observation in Figure 1b is the sharp ascent of the high selectivity schools attracting blacks of high ability versus medium ability. Among black and white high ability four-year college students the same percentage of blacks attend high selectivity schools as whites attend low selectivity institutions--43 percent.

III. SUMMARY AND DISCUSSION

We have seen that almost one-third of high school seniors enter four-year colleges within two years of graduation, and nearly half are in either four- or two-year institutions by that time. Socioeconomic status is a strong influence, and while medium SES individuals, as against high SES, seem to predominate at the two-year level, low ability-high SES persons stand out somewhat at this level of schooling. High school curriculum has its expected effect. More men than women seem to get to college, except that black women seem to be coming along rather well as compared to men of any race.

The four-year college seems to be characterized by higher SES and ability students, whereas the two-year institution has more moderate SES and ability students. There is far less variability at the two-year level on SES and ability: high ability-low SES persons do just about as well in entering these institutions as low ability-high SES persons. But at the four-year level, in addition to more overall variability among students, women have the edge at both high and low ability levels. Ability level is important, too, with respect to race, as blacks have higher entrance rates to four-year colleges than whites at each ability level while Hispanics seem to predominate at the two-year institutions. But there is an indication that this high four-year entrance rate may have a bias as the blacks seem

to pile up in lower selectivity level postsecondary institutions as compared to whites.

It might be fairly concluded that whereas the American system of postsecondary education is well on the road toward equality of postsecondary educational opportunity in terms of sheer numbers and percentages of minorities entering school, we may have a long way to go in achieving a better match between minority individuals and the schools they attend.

Footnote

The work upon which this publication is based was performed pursuant to Contract No. OEC-0-73-6666 with the National Center for Education Statistics of the Department of Health, Education, and Welfare. The opinions expressed in this paper, however, do not necessarily reflect the position or policy of NCES, and no official endorsement by NCES should be inferred.

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Table 1

FALL 1973 COLLEGE ATTENDANCE: PERCENTAGES BY TYPE OF SCHOOL AND ENTRY YEAR

	Type of College		
	Four-Year	Two-Year	Total
Fall 1972	29.4	14.6	44.0
Fall 1973	2.2	2.4	4.6
Total	31.6	17.0	48.6

Table 2

FALL 1972 COLLEGE ATTENDANCE: PERCENTAGES BY SEX AND HIGH SCHOOL PROGRAM

	High School Program		
	General	Academic	Vocational
Male	39.1	78.5	27.8
Female	42.4	80.9	28.4
Average	40.8	79.7	28.1

Table 3

FALL 1973 COLLEGE ATTENDANCE: PERCENTAGES BY SES AND TYPE OF SCHOOL

	SES			
Type of College	Low	Medium*	High	All Levels
Four-Year	15.7	26.1	57.8	31.6
Two-Year	11.2	21.2	19.6	17.0
Total	26.9	47.3	77.4	48.6

*Includes middle two quartiles.

Table 4

FALL 1973 COLLEGE ATTENDANCE: PERCENTAGES BY SEX AND RACE

	Male				Female			
Type of College	Black	Hispanic	White	All Males*	Black	Hispanic	White	All Females*
Four-Year	26.8	18.5	34.7	32.9	29.7	16.0	30.9	30.1
Two-Year	13.3	26.5	18.1	17.9	12.1	21.2	16.0	15.6
Total	40.1	45.0	52.8	50.8	41.8	37.2	46.9	45.7

*Includes persons not classified by black, Hispanic, or white.

Table 5

FALL 1972 FOUR-YEAR COLLEGE ATTENDANCE: PERCENTAGES BY SEX, ABILITY, AND SES

		SES Quartiles				
	Ability Quartiles	Low 1	2	3	High 4	Total*
Men#		20	23	29	41	29
	1 Low	7	6	9	14	9
	2	13	14	15	25	17
	3	22	26	34	52	34
	4 High	38	46	58	74	54
Women#		20	21	27	44	28
	1 Low	7	4	10	18	10
	2	11	12	15	31	17
	3	18	27	29	50	31
	4 High	44	41	53	76	54

*The figures are balanced by SES.

#The figures are balanced by ability.

Table 6

FALL 1972 TWO-YEAR COLLEGE ATTENDANCE: PERCENTAGES BY SEX, ABILITY, AND SES

	Ability Quartiles	SES Quartiles Low 1	2	3	High 4	Total*
Men#		12	18	19	15	16
	1 Low	9	10	11	16	12
	2	9	17	20	16	16
	3	14	21	23	17	19
	4 High	15	24	23	11	18
Women#		13	17	17	14	15
	1 Low	7	9	11	20	12
	2	11	13	14	13	13
	3	10	19	21	15	16
	4 High	22	25	22	9	20

*The figures are balanced by SES

#The figures are balanced by ability.

Table 7

FALL 1972 POSTSECONDARY EDUCATIONAL ATTENDANCE: PERCENTAGES BY RACE AND ABILITY

	Ability Quartiles											
	Black				White				Hispanic			
Type of College	Low 1	2	3	High 4	Low 1	2	3	High 4	Low 1	2	3	High 4
Four-Year	15.5	42.2	54.7	73.8	6.4	15.0	33.7	61.3	9.6	20.2	33.8	52.1
Two-Year	10.1	11.3	10.5	4.6	10.7	17.4	18.9	13.2	19.4	30.2	26.4	26.3
Total	25.6	53.5	65.2	78.4	17.1	32.4	52.6	74.5	29.0	50.4	60.2	28.4

Table 8

FALL 1972 FOUR-YEAR COLLEGE ATTENDANCE: PERCENTAGES BY RACE, ABILITY, AND INSTITUTIONAL SELECTIVITY

	Ability							
	Black				White			
Selectivity Levels	Low	Medium	High	All Levels	Low	Medium	High	All Levels
0,1,2	77.5	75.0	51.7	70.9	69.0	55.3	43.5	49.2
3,4	18.9	16.0	5.2	17.3	30.7	36.1	32.9	33.5
5,6,7	3.6	9.0	43.1	11.8	0.3	8.6	23.6	17.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

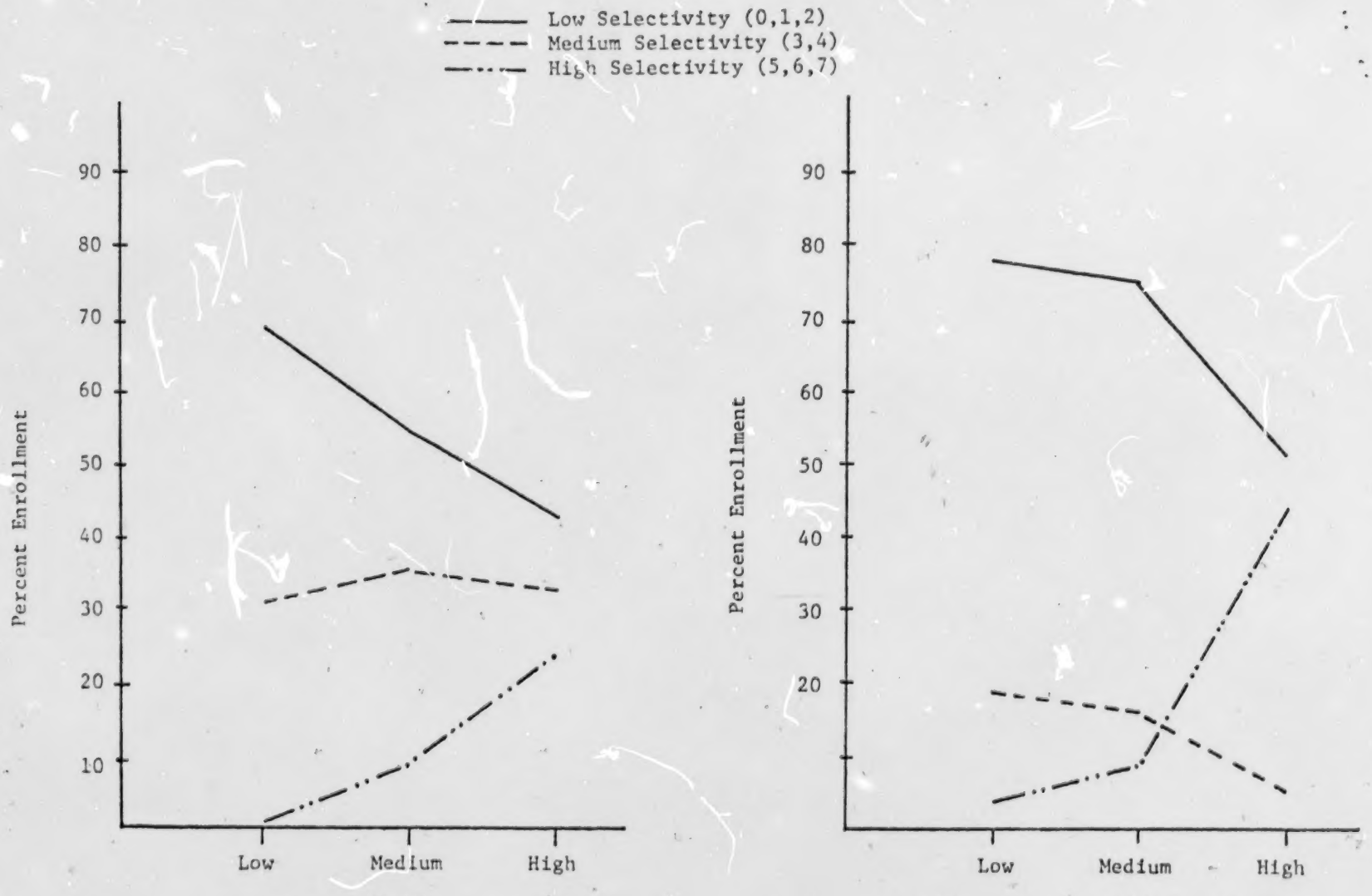

Figure 1a. Whites.

Figure 1b. Blacks.

Figure 1. Fall 1972 Four-Year College Attendance: Percentages by Race, Ability, and Institutional Selectivity.